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entitled (54)	IMPROVED LITTER BIN		(Accompanied by a
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Related Art (56) Nil

The following statement is a full description of this invention, including the best method of performing it known to me:

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THIS INVENTION relates to an improved litter bin.

Litter bins are commonly set up in streets and other public places, such a bin consisting usually of a box-like body to receive a removable litter receptacle, a top portion or cover fitted onto the body being formed with one or more inlet openings through which waste may be fed to fall into the receptacle, which is periodically removed from the body and emptied before being replaced. The provision of these litter bins assists greatly in keeping streets and other public places fairly free of litter; but one major reason for their being incompletely effective for this purpose is that they are not generally used by smokers who are more likely to throw cigarette or cigar butts or used matches onto the ground, or permit dottle knocked from a pipe to fall to the pavement, rather than use the litter bins, which containing paper and other inflammable waste, could easily be set alight accidentally.

The present invention has been devised with the principal object of providing a litter bin suitable for use in streets and other public places and providing facilities for the disposal, by smokers, of matches, butts and pipe residue without there being any likelihood of the litter of other character being accidentally ignited in consequence.

Other objects achievable in preferred embodiments of the invention are to provide such a litter bin which is simple and economical to manufacture, convenient to use, and easily emptied and cleaned.

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With the foregoing and other objects in view, the invention resides broadly in a litter bin including a body; a main litter receptacle in the body; a top portion movably mounted on the body; a main inlet opening leading substantially horizontally into the top portion to receive litter for the main litter receptacle; an ash receptacle in the said top portion and having a bottom outlet opening; a secondary inlet opening above said main inlet opening leading substantially horizontally into the top portion to receive litter for the ash receptacle; and a shutter which normally closing the said outlet opening and is movable to allow the contents of the ash receptacle to be discharged into the main receptacle^{only} when said main receptacle is empty. Other features of the invention will become apparent from the following description.

In order that a preferred embodiment of the invention may be readily understood and carried into practical effect, reference is now made to the accompanying drawings, wherein:-

FIG. 1 is a perspective view of a litter bin according to the invention,

FIG. 2 is a perspective view of the internal ash receptacle of the bin,

FIG. 3 is a partly broken-away side elevational view of the upper part of the litter bin, and

FIG. 4 is a view generally similar to Fig. 3, but showing the top of the litter bin swung to an open position, and the interior ash receptacle opened for discharging its contents.

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The litter bin shown in the drawings includes a box-like lower portion or body 10 which may suitably be of moulded fibreglass construction, supported on four legs 11 and having fitted within it, from the top, a box-like sheet metal main receptacle (not shown) which is open at the top and may be easily lifted out of the body 10.

The litter bin includes a top portion 12, which may be moulded of fibreglass with suitable interior reinforcements, and which at its lower front part is hingedly connected to the upper front part of the body 10, so that it may be swung from normal position through a right angle or more to enable the metal main receptacle to be lifted out for emptying. The top portion 12 has parallel sides 13 and integrally moulded top 14 which, for the main part, curves upwardly and forwardly from the rear to a generally upright front 15 in which there is formed a substantially rectangular opening 16, normally closed by a hinged closure 17, which may be pushed open to enable waste to be inserted into the main receptacle within the body 10 of the bin.

The hinged top portion 12 of the litter bin is formed with a hollow top projection 18, with parallel sides 19 and a top 20 curving up from the rear to a front 21 in which is formed a rectangular opening 22.

Within the top portion 12 of the litter bin there is mounted an ash receptacle 23 made mainly of sheet metal and

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having a pair of parallel sides 24, a back 25 leading by a rearward step at 26 to an upwardly extending stop flange 27, a front 28, the lower part of which inclines rearwardly and downwardly, and a baffle 29 inclining rearwardly and downwardly from the top edge of the front 28 and secured between the two sides 24. A support flange 30 extends forwardly from the top of the front 28. The ash receptacle has an open bottom, normally closed by a shutter 31 having parallel sides 32 located outwardly of the ash receptacle sides 24, and a bottom 33 which at the front is hinged at 34 to the bottom of the ash receptacle front 28. A rod 35 passes through corresponding holes in the ash receptacle sides 24 has enlarged ends 36 engaged in arcuate slots 37 in the sides 32 of the shutter 31. The shutter may be held in closed position by friction between these enlarged ends 36 and the slots 37, or if, preferred, by a helical tension spring 38 connected between the baffle 29 and the bottom 33 of the shutter 31.

The ash receptacle 23 is fitted closely in a rectangular hold formed in the upper portion top 14, the step 26 resting on the top at the rear of the hole, the support flange 30 resting in the top at the front of the hole. In the front opening 22 of the top projection 18 there is fitted a zig-zag guard wire 39.

The litter bin may be used in normal way to receive waste, the closure 17 being pushed open to allow the rubbish to be inserted through the main opening 16.

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Cigarette butts, cigar butts, pipe ash and so on may be passed in to the ash receptacle 23 through the opening 22, the guard wire 39 discouraging the insertion of paper waste or the like through this opening. Cigarette butts, for example, thrown through the opening 22 will be stopped by the stop flange 27, and if they fall onto the baffle 29, they will pass gravitationally into the rear part of the ash receptacle.

When the litter bin is being emptied, the top portion 12 is swung up and forward so that the main receptacle may be lifted out, emptied and returned. When the top portion is so moved, the baffle 29 prevents the contents of the ash receptacle from being spilled out. When the top portion 12 is swung back towards closed position, as shown in Fig. 4, the ash receptacle shutter 31 is swung down to open position so that the contents of the ash receptacle will fall into the empty main receptacle. The shutter 31 is closed, and the top portion 12 of the bin is brought back to closed or normal position as shown in Figs. 1 and 3.

Litter bins according to the invention will be found to be very effective in achieving the objects for which they have been devised. It will, of course, be understood that the particular embodiment of the invention herein described and illustrated may be subject to many modifications of constructional detail and design, which will be readily apparent to persons skilled in the art, without departing from the ambit of the invention as defined by the appended claims.

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The claims defining the invention are as follows:-

1. A litter bin including:

- a body;
- a main litter receptacle in the body;
- a top portion movably mounted on the body;
- a main inlet opening leading substantially horizontally into the top portion to receive litter for the main litter receptacle;

- an ash receptacle in the said top portion having a bottom outlet opening;

- a secondary inlet opening above said main inlet opening and leading substantially horizontally into the top portion to receive litter for the ash receptacle;

- a shutter movably mounted on the ash receptacle normally closing the said outlet opening, and movable to permit the gravitational discharge of the contents of the ash receptacle through the outlet opening into the main receptacle ^{only} when said main receptacle is empty.

2. A litter bin according to claim 1 wherein:

- the top portion is formed with a hollow upward projection,

- the secondary inlet opening is formed in the said projection, and

- the ash receptacle is mounted within the top portion and below the said projection, the interior of the projection forming a way from the secondary inlet opening to the ash receptacle.

3. A litter bin according to claim 1 or claim 2 wherein:

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the top portion is hingedly connected to the body so that it may be swung upwardly to open position to permit the main litter receptacle to be lifted from the body, and

the ash receptacle is provided with a baffle to prevent the contents of the ash receptacle from being discharged therefrom when the top portion is swung hingedly to open position.

⁴/₅. A litter bin substantially as herein described with reference to the accompanying drawings.

DATED this tenth day of March, 1976.

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